UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF TEXAS
WACO DIVISION

SITO MOBILE R&D IP, LLC and SITO
MOBILE, LTD.

Plaintiffs,

v.

HULU, LLC,

Defendant.

Case No. 6:20-cv-00472

JURY TRIAL DEMANDED

[CORRECTED VERSION]
PLAINTIFFS SITO MOBILE R&D IP, LLC AND SITO MOBILE, LTD.'S
OPENING CLAIM CONSTRUCTION BRIEF

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I.   Introduction.

This case relates to how media (e.g., video) is streamed to digital devices (e.g., computers). SITO's constructions stay true to the intrinsic evidence. Hulu, on the other hand, seeks to rewrite the claims. In particular, Hulu's constructions limit terms to specific embodiments and, in some cases, Hulu ignores the plain and ordinary meaning of straightforward terms to do so. For the foregoing reasons, SITO's constructions should be adopted and Hulu's constructions should be rejected.

II.   Technology background.

Media (e.g., video such as television programs or movies) can be streamed over communication networks such as the Internet. Streaming is described below in the context of a movie.

A.   Early streaming systems.

In early streaming systems, a server would stream an entire movie to a viewer. The server controlled the streaming of the movie to the viewer's device (e.g., computer).
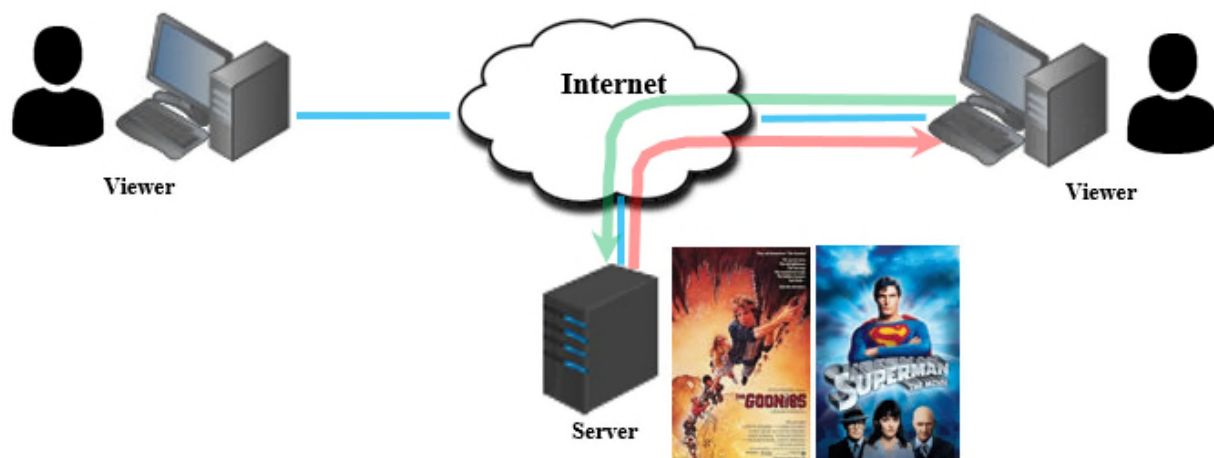
As shown above, a server would store each movie (e.g., The Goonies, Superman) as a *single* file. If a viewer wanted to watch a movie, the viewer could access a streaming website or use a computer application running on the viewer's computer to stream the movie to the computer. After the viewer selected a movie to watch, the viewer's computer would send a request (green arrow) for the movie to the server. Thereafter, the server streamed the movie to the computer (red arrow).

B.   **Present-day streaming systems.**

More recently, streaming systems have changed. In such systems, a movie is broken up into segments, which are stored on one or more servers. The viewer's device (e.g., computer), not the server, controls the streaming of the movie. This configuration provides a number of advantages including improved use of system resources and a better viewing experience.

As shown above, before the movie is sent to a server(s), the movie is broken up into segments.
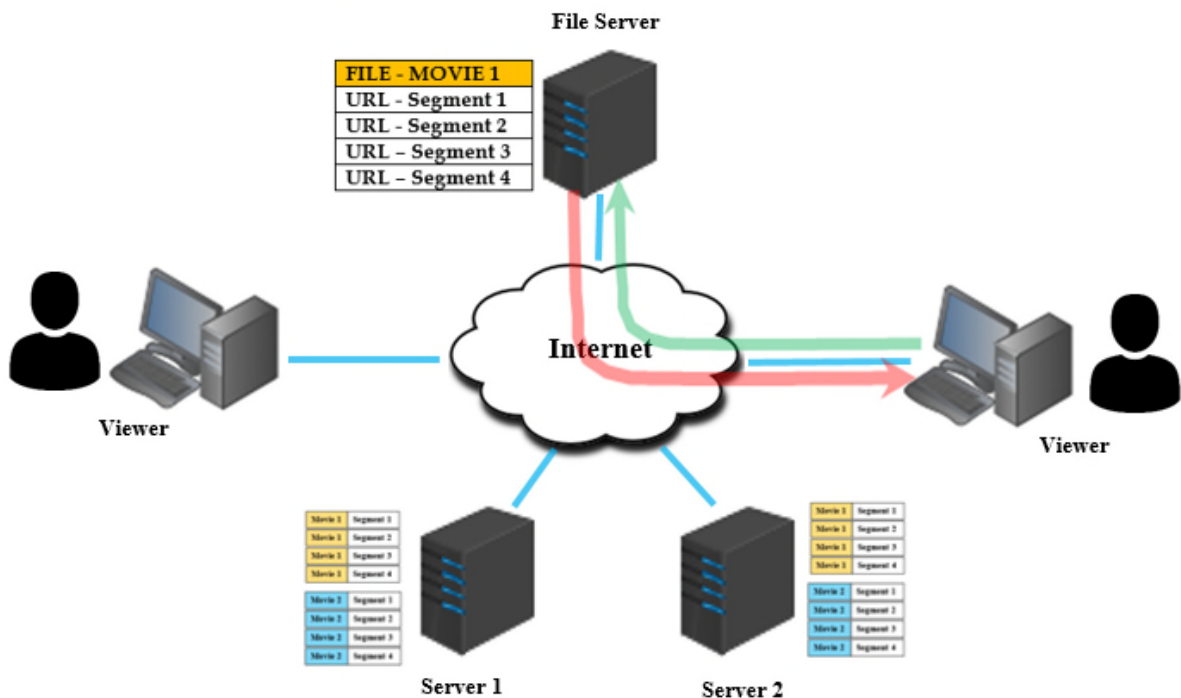
As shown above, Server 1 and/or Server 2 store segments of each movie. Similar to earlier systems, if a viewer wants to watch a movie, the viewer accesses a streaming website or uses a computer application running on the viewer's computer to stream the movie to the computer. But instead of first going directly to a server, the viewer's computer contacts a file server (green arrow). The file server creates a file containing (1) a list of URLs associated with the segments of the movie and (2) additional information (not shown) that enables the computer to retrieve the segments. The file server sends the file to the computer (red arrow).
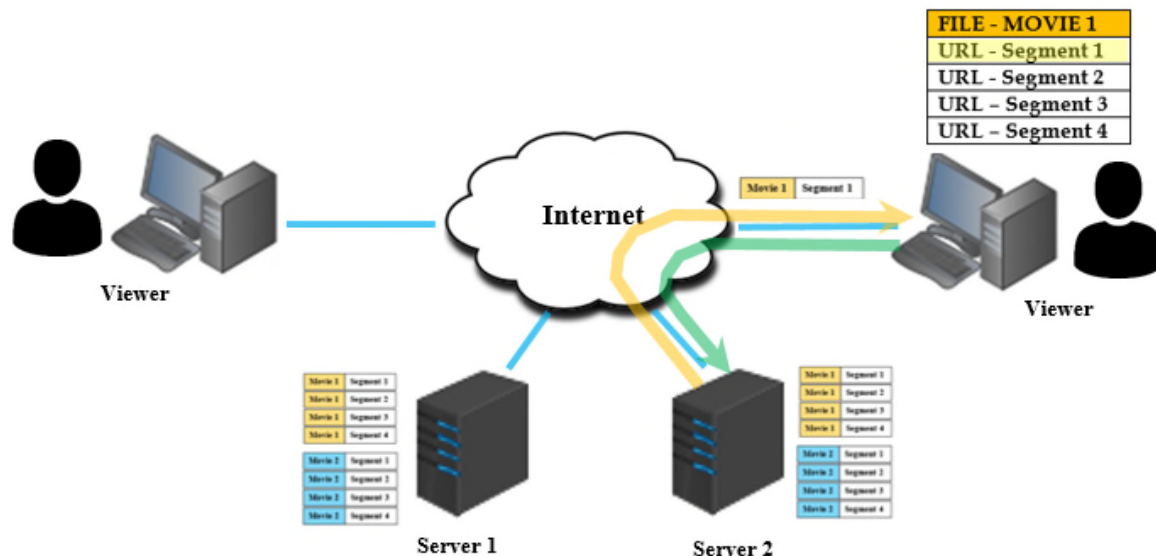
The computer uses the information in the file to retrieve each segment. For example, as shown above, the first URL directs the viewer's computer to retrieve Segment 1 of the movie from Server 2. The computer sends a request (green arrow) to Server 2, which streams Segment 1 of the movie to the computer (orange arrow).

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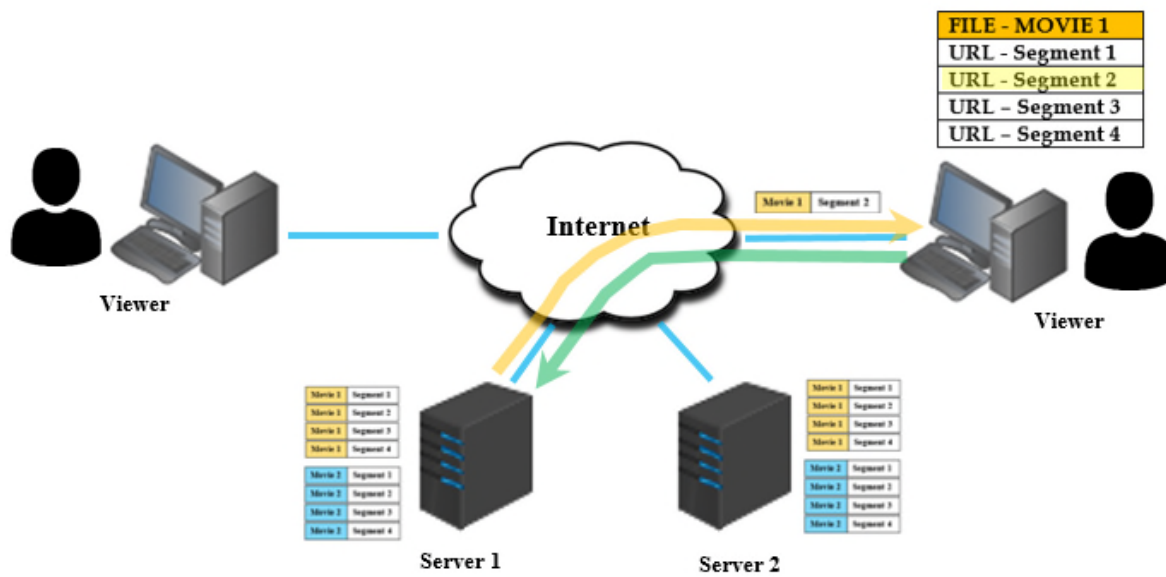
As shown above, the second URL directs the viewer's computer to retrieve

Segment 2 of the movie from Server 1. The computer sends a request (green arrow) to

Server 1, which streams Segment 2 of the movie to the computer. This process repeats

until all segments of the movie have been streamed to the viewer's computer. Server 1

or 2 can provide any of the segments of the movie.

III.   The patents-in-suit.

The patents-in-suit[1] pertain to a particular method for streaming media to end-

user digital devices (e.g., computers, set top boxes or other digital appliances). '887

patent, 1:39-47; 17:4-9.

A.   **Problems with prior art streaming networks.**

The specification discusses early streaming systems that used "real time media

streaming services to render media while it is streamed from the media's server

computer." *Id.* at 1:57-59. The specification notes that real-time media streaming can be

difficult to implement because real-time media applications are "resource intensive and

lack sufficient state control models to ensure proper quality of service." *Id.* at 1:65 – 2:3.

According to the specification, there were numerous problems with then-existing

systems:

> [C]urrent technologies treat each digital media stream as an individual
> session with *little or no association to the viewer*. Moreover, existing digital
> media streaming devices focus on the technical transmission and delivery
> of media, and *place little control over the viewer management and media*

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[1] The patents-in-suit are U.S. Patents Nos. 8,825,887 ("'887 Patent"); 9,026,673 ("'673 Patent"); 9,135,635 ("'635 Patent"); 9,135,636 ("'636 Patent"); 9,591,360 ("'360 Patent"); 10,009,637 ("'637 Patent"); and 10,171,846 ("'846 Patent"). Because the patents-in-suit share the same specification, all citations in this section will reference the '887 patent.

content management. Finally, the current streaming video networks *lack sufficient notions of network-wide and multi-level resource allocation and control,*
. . . .

Id. at 2:26-37.[2]

      B.   **The solution of the patents-in-suit.**

To overcome the problems with prior systems, the streaming system of the patents-in-suit breaks media up into segments and stores those segments on one or more servers. The system generates and sends a file, referred to as a play script, to a viewer's device. The file contains media reference(s) (identifier(s) of media segment(s)) and other information necessary for streaming the media. The play script is used by the viewer's device to retrieve the media segments. In this way, the viewer's device, rather than the server, controls the streaming of media.

As shown in Figure 1 below, the patents-in-suit disclose a streaming system 102 (blue) for delivering media (e.g., video) to a viewer 118 or 120 (green). The media can include one or more media clips. *Id.* at 3:47-50.

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[2] Unless otherwise indicated, all emphasis has been added.
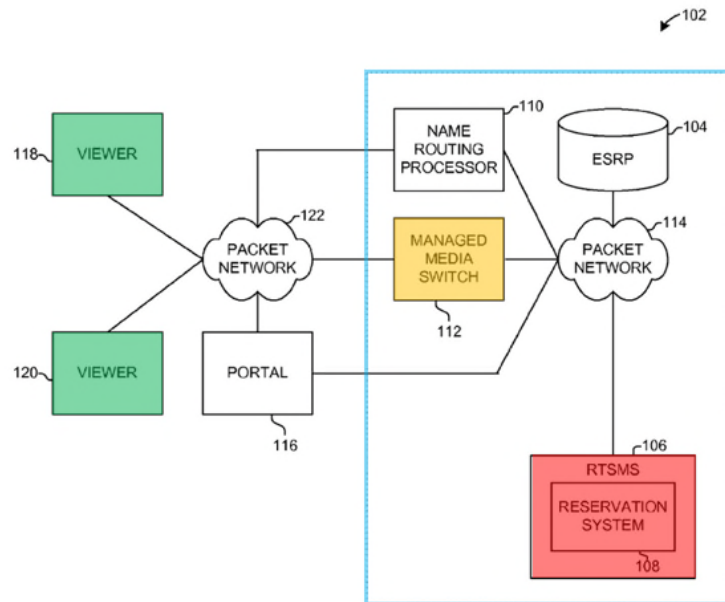
FIG. 1

The streaming system includes a managed media switch (MMS) 112 (orange) and real time switch management system (RTSMS) 106 (red). "The MMS 112 has communication devices, such as one or more stream casters and one or more media servers, that provide requested media to a viewer 118 or 120." *Id.* at 14:63-66.

The RTSMS receives a request from a viewer 118, 120 for media (*e.g.,* a video such as a television show or movie). *Id.* at 9:61-65. Upon receiving a request for the media, the RTSMS generates a presentation for the requested media. *Id.* at 10:45-47. A play script is associated with a presentation; the play script identifies one or more media clips for the requested media. *Id.* at 10:6-12. Additionally, the play script may also include one or more advertisements, which may also be media clips. *Id.* The play script may contain URLs that the viewer 118, 120 can use to obtain the media clips. *Id.* at 10:27-33.

The play script is sent to the viewer 118, 120. The viewer 118, 120 obtains all of

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the media clips associated with the requested media and, if present, media clips

associated with an advertisement(s) identified in the play script. In this way, and unlike

the prior art systems, the viewer, not the server, controls the streaming of the requested

media. In particular, using a URL in the play script, the viewer 118, 120 sends a request

to the streaming system 102 for each media clip on the play script. *Id*. at 13:49-50. The

streaming system returns the IP address of a server in the MMS that can provide the

media clip. *Id.* at 13:51-57. Using the IP address, the viewer 118, 120 contacts the server,

which then streams the media clip to the viewer 118, 120. *Id.* at 13:60-14:2. This process

repeats for each media clip until the viewer 118, 120 receives all media clips making up

the requested program. *Id*.

60 minute TV program					
20 min video clip #1	Ads	20 min video clip #2	Ads	20 min video clip #3

For example, in the case of a 60-minute television program, the play script may

include (1) a video clip #1 for a 20-minute portion of the television program, (2) a first

advertisement, (3) a video clip #2 for the second 20 minutes of the television program,

(4) a second advertisement, and (5) a video clip #3 for the final 20 minutes of the

television program. The viewer 118, 120 can request each media clip/advertisement and

play the media clips/advertisements in sequential order so that the television program

with advertisements can be watched. *Id*. at 5:39-43.

IV.   Disputed terms for construction.

A.   "request for media" ('887 patent, claims 39, 45, 68, 98; '673 patent, claim 1; '635 patent, claim 1; '636 patent, claims 1, 34)

SITO's Construction	Hulu's Construction
Plain and ordinary meaning	request to provide a particular audio, video, or other data, such as a particular television show or movie

A request for media is just that — a request for media (e.g., video). Media can be live or on-demand ('887 patent, 3:42) and the specification provides a clear description of media: "Media may include audio, video, images, moving text messages such as stock ticker tapes, and other data. Media may include one or more media clips or a part of a media clip." *Id*. at 3:47-50. No construction is necessary. The term should be given its plain and ordinary meaning.

The specification broadly describes a request for media. A request for media can be (1) a request for a program, which includes the media (indirect request for media), or (2) a request for individual media or a list of media (direct request for media), which would include media clips. *Id*. at 9:63-67 ("The initial signaling from the viewer 118 or 120 typically is a *request for a program or programs*. However, a simple *request for an individual media or list of media* may be honored in some embodiments."); *Id*. at 3:47-50 ("Media may include *one or more media clips or a part of a media clip*.").

Hulu improperly seeks to re-write the claim language — changing "request for" to "request *to provide*" and "media" to "*particular* audio, video, or other data, such as a particular television show or movie." In doing so, Hulu seeks to limit the claims to an embodiment, while excluding other embodiments. For example, the specification

describes a dynamically generated monthly financial (fund) program, which contains

different media depending on who is watching the program.

> [A] person using a viewer may have money in funds A and B but not C or
> D . . . . The RTSMS 106 may use the rule set in the *monthly fund program to*
> *dynamically place media clips* that contain the A and B fund managers
> discussing recent performance, analysts discussing the outlook for the
> goals of the A and B funds, and advice customized for that investment
> level in the presentation. Whereas, if the person using the viewer has
> $50,000 in an IRA in fund C, the RTSMS 106 may use the rule set in the
> *same monthly fund program* to dynamically place media clips showing the C
> fund managers discussing recent performance, analysts discussing the
> outlook for the fund's goals, and a tax expert discussing the implications
> of IRA tax law changes that affect IRAs at that level in the presentation.

'887 patent, 11:22-37. In other words, the *same* monthly fund program would have

different media depending on who requested the program. As such, the request for

media would *not* be a request for a particular video (television show). Instead, it is a

request to provide media that is part of the monthly fund program. For the foregoing

reasons, Hulu's construction should be rejected and the term "request for media"

should be given its plain and ordinary meaning.

B.   **"settlement record" ('887 patent, claims 39, 45, 68, 98) / "settlement" ('637
     patent, claim 7; '846 patent, claim 7)**

SITO's Construction	Hulu's Construction
Record to be used for revenue settlement	billable event record to be used for revenue settlement

The parties agree that a "settlement record" / "settlement" is a record to be used

for revenue settlement. The parties disagree on Hulu's additional language requiring

that the record be a "billable event" record, which is tied to a specific embodiment of a

settlement record.

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The specification explains that revenue can be generated from media that is streamed. The revenue may be allocated between program publishers (media owner/creator), network operators (who delivered the content) and/or advertisers. '887 patent, 5:25-36; 7:50-60; 9:17-29. Information can be collected to create records that can be used to allocate revenue (revenue settlement). In particular, the specification states that a component of the streaming system, referred to as a real time switch management system (RTSMS), can collect logs and billing data from other components of the streaming system. *Id*. at 12:8-12. Logs are "a *record of the event*s that have occurred and are viewable and *auditable*." *Id*. The fact that the logs are "auditable" means that the logs are used for revenue settlement. As such, logs are one type of settlement record. The specification also states that the logs and billing data can be "collated" into a record, referred to as a message sequence detailed record (MSDR). *Id*. at 12:17-20. As such, an MSDR is *another* type of settlement record. SITO's construction covers both types of records.

Hulu, on the other hand, seeks to limit settlement records to MSDRs and, in particular, MSDRs that are "billable event" records. Indeed, Hulu's construction — "billable event record to be used for revenue settlement" comes from the specification's discussion of MSDRs: "The MSDR *represents* a *billable event record* that will *be used for revenue settlement* purposes." *Id*. at 12:25-26. But Hulu's limiting construction is wrong.

First, as discussed above, the specification makes it clear that MSDRs are "collated" logs. But individual logs are also settlement records. And these logs are described simply as "records of [] events," *not* "billable event" records. As such, not all

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settlement records are limited to "*billable* events" as Hulu's construction requires. *Second*, the specification states that an "MSDR *can be used* for billing records and other settlement purposes." *Id*. at 22:51-53. As such, revenue settlement does *not* require the use of MSDRs. *Third*, the specification states that the MSDR can be used to determine *credits*, *not* only billing: "The RTSMS 106 can use the MSDR with rules identified in an order to determine bills and *credits* to be appropriated to various entities." *Id*. at 12:59-62; *see also id.* at 11:44-46 ("The RTSMS 106 also may be configured to bill or *credit* entities according to order rules and/or the statistical information."); 9:17-21 ("The ESRP 104 also enables a media owner and/or a publishing agent of the owner . . . to generate the settlement rules that define who will be billed or *credited* when media is transmitted to a viewer or another device and the terms of the bill or *credit*.").

 Finally, Hulu's use of the language "billable event" injects ambiguity in the claim term. With Hulu's construction inserted into the claim, the claims read as follows: "producing at least one [*billable event record* to *be used for revenue settlement*] reflecting a sharing of the at least the percentage of revenue generated by streaming the at least the portion of the requested media." *See e.g., id.* at 51:19-21. In this context, the use of "billable event" implies that the entity producing the settlement record is the *same* entity that is doing the billing. This is inconsistent with the specification, which states that billing records can be provided to any billing entity: "The MSDR then can be used to *provide billing records to <u>billing entities</u>* according to billing rules . . . ." *Id.* at 20:60-62. As such, the entity that produces the settlement record does *not* necessarily have to be the

same entity that is doing the billing. For the foregoing reasons, Hulu's construction

should be rejected and SITO's construction should be adopted.

    C.   **"play script" ('673 patent, claim 1; '635 patent, claim 1; '636 patent, claims 1, 34)**

SITO's Construction	Hulu's Construction
a file containing one or more media references and other information used by a communication device to obtain media	a list customized for the communication device containing one or more media references and instructions executable by the communication device

A communication device (e.g., computer) uses a play script to obtain one or more

media clips that make up, e.g., a television show, movie, etc. so that the communication

device can play the media clips. A play script is a file and it contains (1) one or more

media references, which identify the media clip(s)/advertisement(s) and (2) other

information used by the communication device to obtain the media clip(s)/

advertisement(s).

As shown in the table below, the claims of the patents-in-suit describe the types

of information contained in the play script.

'673 patent claims 1, 7, 14, 19, 34	'635 patent, claims 1, 25, 49	'636 patent claims 1, 18, 34, 52, 58
play script, comprising: **(i)** an identification of the at least one portion of the requested media, **(ii)** an identification of the at least one other media, **(iii)** a reservation identification associated with the request for media, **(iv)** at least one universal resource locator (URL)	play script, comprising: **(i)** at least one identification of the at least one portion of the requested media, **(ii)** an indication that an advertising media clip is to be streamed to the communication device, **(iii)** at least one universal resource locator (URL) associated with the	play script, comprising: **(i)** at least one identification of the at least one portion of the requested media; **(ii)** a reservation identification associated with the request for media, **(iii)** at least one universal resource locator (URL) associated with the at least one identification of the at

associated with at least one of the identification of the at least one portion of the requested media and the identification of the at least one other media . . . **(v)** one or more instructions for use by the communication device together with the at least one URL and the reservation identification to enable the at least one communication device to obtain the at least one portion of the requested media and the at least one other media	identification of the at least one portion of the requested media . . . **(iv)** one or more instructions for use by the communication device together with the at least one URL to cause the at least one portion of the requested media to be streamed to the communication device	least one portion of the requested media. . . **(iv)** one or more instructions for use by the communication device together with the at least one URL and the reservation identification to enable the communication device to obtain the at least one portion of the requested media

Hulu's construction not only seeks to *limit* the claims to an embodiment of the invention, but it is inaccurate and, thus, fails to capture the meaning of a play script.

First, a play script is *not* just a list. Instead, a play script *contains*, among other things (and as shown in the chart above), a list of media references: "The play script *contains a list of one or more media references* for the presentation . . . ." '673 patent, 8:59-60.

Second, the play script does *not* have to be "customized for the communication device." As discussed above, the play script is associated with a presentation. The specification specifically states that "the presentation *typically is customized* for an individual viewing session . . . ." *Id*. at 8:24-25. In other words, the presentation and its play script are *not* always customized for a communication device. Indeed, the specification distinguishes between (1) play scripts and (2) customized play scripts that are generated for customized presentations. *See id*. at 24:40-45 ("The reservation generator 208 creates *a play script* for the viewer and transmits the play script to the viewer. The reservation generator 208 creates a *customized play script* for each *customized*

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presentation, including a play script for the media clips in the presentation and the reservation identification.").

And, there are numerous embodiments that do not describe play scripts as being customized. *See, e.g., id.* at 20:9-11 ("*In another example*, the viewer 120 requests media and *receives <u>a play script</u>* from the RTSMS 106 for viewing a presentation. The presentation has three media clips."); 21:54-57 (*In another example*, the viewer 120 requests access to media. The RTSMS 106 *returns <u>a play script</u>* to the viewer 120. The play script identifies two media clips, in addition to the reservation identification and the NRP identification.").

Notably, the concept of customization is included in *some* claims, but <u>not</u> others. For example, claim 34 of the '673 patent specifically recites that the "play script" is generated based on "attributes of the communication device." '673 patent, 56:5-12. Claim 1 of the '635 patent has no such limitation regarding a play script. Hulu is improperly seeking to rewrite the claims to inject the concept of customization into all of the claims reciting "play script," even where the patentees specifically chose to omit that concept. Moreover, when discussing customization, the specification refers to a "customized play script." '673 patent, 10:6-8, 20-21, 27-28; 19:5-10; 24:42-43. The use of the adjective "customized" before the term "play script" demonstrates that a play script is not, by its nature, customized.

Finally, Hulu's language "instructions executable by the communication device" is wrong. Though "instructions" may be included in a play script, there is nothing requiring that all play scripts include "instructions." As shown in the table above,

where the patentees wanted to include instructions in a play script, they recited it in the claims: "*one or more instructions <u>for use by</u>* the communication device." Hulu language is also an improper attempt to change what the claims say about instructions. Whereas Hulu's construction requires instruction to be "*executable* by the communication device," the plain language in the claim merely requires that the instructions be *used* by the communication device. For the foregoing reasons, Hulu's construction should be rejected and SITO's construction should be adopted.

D.   **"reservation identification" ('673 patent, claim 1; '636 patent, claims 1, 34; '360 patent, claim 16)**

SITO's Construction	Hulu's Construction
Plain and ordinary meaning Identification of a reservation	designator uniquely identifying a reservation (as that term is construed)

A "reservation identification" is just that — an identification of a reservation. The parties dispute the meaning of the term "reservation," which SITO addresses directly below, and so presumably, the Court will define "reservation." And the term "identification" has no special meaning in the patents-in-suit and, thus, should be given its plain and ordinary meaning. As such, no construction of "reservation identification" is necessary; it should be given its plain and ordinary meaning.

Once again, Hulu seeks to *limit* the claims to an embodiment. Indeed, the disclosure in the specification regarding a reservation identification being "unique" refers to this as *an embodiment*: "*In one embodiment*, a separate URL identifies each name on a play script for a presentation, and the reservation has a *<u>unique</u> reservation identification* that is located in each URL." '673 patent, 10:28-31. Even then, the use of the

adjective "unique" before the term "reservation identification" demonstrates that a

"reservation identification" is not, by its nature, uniquely identifying a reservation. For

the foregoing reasons, Hulu's construction should be rejected and the term should be

given its plain and ordinary meaning.

E.   **"reservation" ('673 patent, claim 3)**

SITO's Construction	Hulu's Construction
arrangement regarding reserved resources of a streaming system	a set of instructions uniquely identifying the communication device and the play script, and reserving system resources for streaming the requested media

Both parties agree that a reservation involves reserved resources. This is because

the specification states that "[a] *reservation* is a feature that *enables the streaming system*

102 to reserve system resources, such as switches, processors, or media, either now or in

the future, to ensure a quality media experience." '673patent, 10:33-37. As such, a

reservation is simply an arrangement regarding such reserved resources.[3] SITO's

construction captures this disclosure from the specification.

Once again, Hulu attempts to narrowly construe the claim language. *First*,

contrary to Hulu's construction, and as the quoted disclosure above shows, the

specification does *not* describe a reservation as a "set of instructions." *Second*, Hulu's

language "uniquely identifying the communication device and the play script" is taken

from the specification's description of Figure 1: "The reservation uniquely identifies the

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[3] A "reservation" is "[t]he act of reserving; a keeping back or withholding. [] Something
that is kept back or withheld. . . [a]n arrangement for securing accommodations in
advance." Ex. 1 at p. 4 (The American Heritage College Dictionary 1160 (3d Ed. 1997)).

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viewer 118 or 120 and the customized play script." '673 patent, 10:27-28. This passage, however, does not describe what a reservation is but, rather, describes features of an exemplary reservation. Indeed, Figure 1 is described as "an embodiment" of the present invention. *Id.* at 2:41-42 ("FIG. 1 is a block diagram of a streaming system in accordance with *an embodiment* of the present invention."). *Finally*, Hulu's construction is inconsistent with the claims. In particular, Hulu's construction recites "a set of instructions uniquely identifying . . . *the play script*" (*one* play script). But claims 3, 9 and 16 of the '673 patent, on the other hand, recite "[generate/generating] a *reservation associated with* the *at least one* play script" – i.e., a reservation may be associated with *more than one* play script. For the foregoing reasons, Hulu's construction should be rejected and SITO's construction should be adopted.

F.   **"media clip" ('635 patent, claim 18; '636 patent, claim 2) / "advertising media clip" ('673 patent, claim 5; '635 patent, claim 1; '636 patent, claim 11; '846 patent, claims 2, 7, 8)**

Term	SITO's Construction	Hulu's Construction
"media clip"	Plain and ordinary meaning	complete media items, such as a complete movie or advertisement
"advertising media clip"	Plain and ordinary meaning	a complete advertisement

A "media clip" or "advertising media clip" is simply a clip of media and should be given its plain and ordinary meaning. The specification recites that media (e.g., a video) can be made up of *multiple* media clips.

> Media may include audio, video, images, moving text messages such as stock ticker tapes, and other data. *Media may include one or more media clips or a part of a media clip.*

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'673 patent, 3:47-50. In other words, a "media clip" can be a portion of a video.[4]

Hulu's construction seeks to improperly *limit* "media clip" and "advertising media clip" to an embodiment – a *complete* media item/advertisement (e.g., a complete movie or complete advertisement). In doing so, Hulu seeks to *exclude* a media clip being a portion/segment (less than all) of a movie or advertisement. *First*, Hulu's construction is inconsistent with the above-quoted specification excerpt. Hulu ignores the "or more" language in the excerpt, which covers media (e.g., a video) being made up of *more than one* media clip (i.e., multiple media clips). Logically, if, for example, a video (movie) can be made up of multiple media clips, then a media clip is necessarily a segment (less than all) of that video (movie). *Second*, Hulu's construction is inconsistent with the language in the patent claims. Consistent with the specification, the patent claims state that the media (e.g., a video) can include *multiple* media clips: "the [requested] *media comprises one or more media clips*." *See e.g.*, '635 patent, claims 9, 32, 56; '636 patent, claims 2, 19, 53. For the foregoing reasons, Hulu's constructions should be rejected and the "media clip" terms should be given their plain and ordinary meaning.

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[4] A "media clip" being a portion of video is consistent with the ordinary meaning of "clip": "A short *extract* from a film or videotape." Ex. 1 at p. 3 (The American Heritage College Dictionary 263 (3d Ed. 1997)).

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